THE FARMERS' CABINET;

DEVOTED TO AGRICULTURE, HORTICULTURE, AND RURAL ECONOMY.

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For the Farmers' Cabinet.

Agricultural Implements.

NO. VIII.

THE REVOLVING HAY AND GRAIN HORSE RAKE.

This machine is of great importance not only in saving labor and expense, but also in saving property by despatch, where it would otherwise be injured or destroyed by wet; but for want of care in the construction of it, both in materials and proportion, its character for usefulness has, in some degree, been impaired. This, like all other machines, should be made so that in ordinary use every part should be strong enough to perform its part, and in extraordinary cases some part which can easily be repaired should break or give way so as to save the other parts which would be more difficult to repair when broken. Experience has shown that the teeth of this machine should be made so much weaker than the other parts as to break in extraordinary cases, and thereby save the other parts.

The following description for the power of one horse will probably be found in practice a proper proportion, the dimensions may be varied according to circumstances. For instance, where the ground is rougher than usual, the head may be shorter; and where it is smooth enough, the head may be increased to double the length here described, and two horses used at the same time; and where all the hay to be gathered is of a coarse kind, the teeth may be placed further apart. The teeth here described will be sufficiently strong to cause the head to make a half revolution, or stop the horse when coming in contact with a fixed obstruction, except in extraordinary cases.

A new tooth in place of a broken one is easily supplied.

Chester County, Pa. 15th May, 1837.

Each piece of wood, (except the shafts,) is straight, and the whole is composed of hard, strong, seasoned timber.

Rake head, 10 feet long, 3 1-2 inches square, with 18 mortices, each 1 1-8 inches square, 6 1-2 inches asunder from centre to centre, parallel with each other, and at right angles to the head. It is made round or cylindrical, 3 1-2 inches diameter, and 2 inches long, equi-distant between the 4th and 5th mortices from the ends, for the large ends of the shafts to turn on, and also the same diameter, and 1 1-8 inches long between the 7th and 8th mortices from the ends, within about 1 1-2 inches from the 8th mortices, for the large ends of the handles to turn on. The corners are taken off 1-2 an inch on each side, and a rivet passed through at right angles to the mortices, near each end.

Eighteen Double Teeth, each 4 feet long, 1 1-8 inches square, driven to the middle in the head, and pointed at both ends, forming 2 teeth with points in opposite directions, 2 feet from the centre of the head, leaving the upper side of the fore or anterior teeth straight.

Two Shafts, each 3 feet long, 3 5-8 by 2 inches at one end, and 2 inches square at the other end, bent upwards in the middle to make room for the hay and grain; a natural turn is best. The large ends are cut semi-circular, to fit the rounds on the head; and 2 straps of iron, each 15 inches long, 1 1-2 inches wide, and 1-8 of an inch thick, bent in the middle to fit the other part of the round on the head, and bolted to the edges of the shafts, form collars or circles for the head to turn in. The corners, 1-4 of an inch on each side, are taken off, and small hooks riveted on the outside of the shafts at the small ends, for

the horse to draw by. The shafts are parallel with each other, and connected together by

A Shaft Board, 5 feet 7 inches long, 6 inches wide, and 3-4 of an inch thick, with double tennons on each end passed through the shafts. The hind or posterior edge of the shaft-board is 2 feet from the circle on the shafts, so as to permit the teeth to turn behind it.

Two Handles, each 4 1-2 feet long, 3 5-8 by 1 1-8 inches at one end, and 2 by 1 1-8 inches at the other end. The large ends are cut semi-circular, to fit the rounds on the head; and 2 iron straps, each 15 inches long, 3-4 of an inch wide, and 1-8 of an inch thick, bent in the middle to fit the other part of the rounds, and the ends bolted to the edges of the handles, form collars or circles for the head to turn in. The corners are taken off 1-4 of an inch at each side, and the handles framed together parallel with each other by

Two Rounds, each 1 1-8 inches diameter, one of them 2 feet 7 inches long, and the other 2 feet 3 inches long; the parts that go through the handles are reduced to an inch diameter. The centre of the long round is 2 feet from the circle on the large ends of the handles, and the centres of the two rounds are 2 feet asunder. The ends of the long round receive

Two Press-Rods, each 2 by 1 inch at one end, and 1 inch square at the other end, and 2 feet 9 inches long; and have holes, each 1 inch diameter, bored at right angles across them, 5 inches from the large ends. The rods turn on the round, and are kept near the handles by small pins passed through the round. The small ends are guarded by thin flat-headed nails covering them, and press against 4 iron dogs, 2 on each side of the head; a dog on each side of the head is confined by a bolt and nut; the bolt passes through the rake head, and through oblong holes in the dogs, each, 1 1-2 by 1-2 an inch; the oblong holes serve to adjust the dogs to the smaller ends of the press-rods; each dog is about 5 inches long, 1 inch wide, and 1-2 an inch thick; the hole near one end, and the other bent up at right angles about 1-2 an inch for the press-rods to force against when the handles are raised at the small ends; the head is cut away on one side, so as to sink the top of the turned up part of the dogs to a line with the upper side of the rake head; these dogs are immediately at the outside of the handles.

Two Standards of the hold-fast, each 1 foot long, 2 by 1 1-8 inches at one end, and 1 1-8 inches square at the other end; they are connected together about 4 inches from the large ends, by a *round*, passing through from one edge to the other; the out edges of the standards are 9 inches asunder, and parallel with each other; the small ends are made into parts of circles, 1 1-8 inches diameter, and turn on the long round between the handles; 2 straps of iron, each 7 or 8 inches long, 3-4 of an inch wide, and 1-8 of an inch thick, bent in the middle, and the ends bolted to the sides of the standards, form (with the circular ends of the standards) collars or circles, 1 1-8 inches diameter, to turn on the long round between the handles, the large ends of the standards are kept over the two middle hind or posterior teeth, by small staples driven into the round at the out edges of the straps; or circular grooves may be formed in the round, 1 inch diameter, and collars or circles of a corresponding diameter, formed to turn in them.

A Round for the standards is 9 inches long, 1 1-4 inches diameter, with 1 1-8 inches in the middle reduced to 1 1-8 inches diameter, and the ends that go through the standards reduced to 3-4 of an inch diameter, or the size of the holes in the standards.

An Arm, 3 feet 7 inches long, 1 1-8 inches square, has one end cut into the part of a circle to fit on the middle of the round of the hold-fast, and a strap of iron 7 or 8 inches long, 3-4 of an inch wide, and 1-8 of an inch thick, bent in the middle, to part of the same circle: fits on the other part of the round, and when the ends of the strap are bolted to opposite sides of the arm, the strap and end of the arm form a collar or circle, 1 1-8 inches diameter, to turn on the middle of the round of the hold-fast; the other end of the arm is connected by a similar strap to the middle of the hind or posterior edge of the shaft-board; the strap and end of the arm embraces a portion of the shaft-board; this portion is formed by making a mortice 1-2 an inch wide, and 1 1-8 inches long, leaving 1-2 an inch between the mortice and the edge of the board; the corners of this portion next to the mortice are taken off, leaving a part of it semi-circular; 2 small screws, each 1 1-2 inches long, passed into the edge of the board at the ends of the mortice, serve to strengthen this portion; the end of the arm may be 1 inch from the middle of the strap, and it and the edge of the shaft-board may be straight; the space between the arm and shaft-board allows a little motion in the shafts, without moving the large ends of the standards of the hold-fast when in operation; the handles are braced by a rod of iron about 3 feet long, 1-4 of an inch diameter, bent in the middle, and riveted to the middle of the long round, and the ends riveted to the handles between the rounds; each of the small straps may be of the same dimensions; the bolts for the dogs, handles, and shafts, may each be about 3-8 of an inch square or diameter, with a head on one end, and a screw and nut on the other, and of sufficient length to pass through the objects intended, including the nut, but no more; the bolts for the standards and arm

may each be 1-4 of an inch square or diameter, and long enough to extend through the objects intended, including the nut, but no more. *The whole machine made as smooth as possible.* One bolt serves for two dogs, and one bolt for both ends of a strap; each nut on the shafts, handles, and arms, should be on the upper side, and those on the standards should be on the hind or posterior sides.

The machine may be varied from the aforesaid dimensions to suit circumstances. The points of the teeth should be kept each set in a straight line, parallel with the head; the tennons are confined in the mortices by small pins. The whole machine should be well painted, and kept entirely out of the wet, or as much so as possible.

The operation is as follows, viz:—The shafts are raised at the small ends a sufficient height to make room for the hay and grain between them and the fore or anterior teeth; this causes the arm to push back the large ends of the standards of the hold-fast on the two hind or posterior middle teeth, to within an inch or two of the points of those teeth; the small ends of the handles are raised, at the same time, to a suitable height for the person attending it to hold by the middle of the upper or short round of the handles with one hand, while he guides the horse by a line with the other hand. The shafts are held to this height by the harness of the horse; and sometimes a small cord or leather strap (and buckle) attached, with one end to the bolt on the arm near the shaft-board, and the other end to the middle of the long round of the handles assists to keep the shafts and handles to a proper height. The horse is brought within two or three feet of the shaft-board, and the dogs adjusted to the press-rods so that, when the standards of the hold-fast rest with their large ends on the two middle hind or posterior teeth, within an inch or two of the points of those teeth, and then raised about half an inch from the teeth, the small ends of the press-rods press with equal force against the two dogs on the upper side of the rake head. The four dogs are each confined firmly to their places by the bolt-head pressing with great force against one dog, and the nut against the other dog on the opposite side of the rake head. Each bolt goes through the head at right angles to a flat surface formed to receive the dogs, and each fits in the head as tightly as possible so as not to split it. The rake head lies on the ground when in operation, and the fore or anterior teeth also on the ground, about four or five inches from their points; each set of teeth, as they alternately become the anterior ones, are straight on the upper side, and the same, when hind or posterior teeth, are straight on the under side from the head to their points, or as near the points as possible, so as to preserve substance enough to prevent them from being bruised when in operation—the points being always made so as neither to be bruised, nor to push the hay or grain before them. The usual method is to reduce them in a straight line from about four or five inches from the ends, to the ends of the teeth, leaving 1-4 of an inch square on the end at the upper part of the anterior teeth, and on the lower part of the end of the posterior or hind teeth, and then dress off this 1-4 of an inch half round, or of a semi-spherical form; and when hard timber cannot be procured, the teeth may be made larger, so as to give the necessary strength, and their ends guarded by sockets or tangs of pointed iron or steel. The corners of the teeth, from the points to the rake head, are made as square as possible, so as to wear smooth. When the small ends of the handles are raised, and the press-rods force against the dogs, and the rake head raised till the points of the fore or anterior teeth come in contact with the ground, the draught of the horse then causes the rake head to turn with the other side up, and the other set of teeth forward, which discharges the hay or grain into winrows or sheaves, and the other set of teeth go into operation until they become filled: the head then performs, in like manner, another half revolution, and so on alternately, without stopping the horse, forming regular winrows at right angles to the course which the horse moves and two sheaves at each half revolution—one sheaf on each end of the rake. The scatterings of hay are collected merely by passing over the ground that the winrow has been taken from; and when the machine becomes filled, the load is discharged as before stated, but in detached parcels of a very convenient size, to be taken from the meadow. In gleaning a stubble field of grain, after the sheaves are removed, the scatterings are first collected into winrows, and then the horse made to walk at the side of the winrow, and collect it into heaps; or it may be taken from the winrow, and the ground where the winrow lay be passed over with the machine as before stated. When the handles are lowered at the upper ends, and the standards of the holdfast forced down on the two middle hind or posterior teeth, the fore or anterior teeth are thereby raised. Additional weight on the handles prevents the head from being turned too soon by the pressure of the hay or grain on the anterior teeth. The arm always pushes back the lower ends of the standards of the holdfast so as to clear the points of the teeth when required.

It is better to *know* a few things, than to have a mere *notion* about many things.

From the Farmer and Gardener.

Work for June.

ON THE FARM.

The labors of this month are full of interest, not only to the farmer, but to every individual in the community, as upon the results of the labors of the husbandman usually performed in it, much depends whether the products of the earth be plentiful or scarce. This being the case, let us see what they are.

CORN.

This will require the most assiduous attention of the cultivator. Where that operation has not already been performed, it must be thinned out, and as *transplanted* corn answers better than that which is *replanted*, we would advise that the superfluous stalks be taken up with care, with as much of the soil attached to them as possible, in order that they may be placed wherever, by the worm or casualty, other stalks may have been destroyed.

The operation of thinning, replanting and transplanting being over, then comes the duties of its future cultivation. The earth must be *kept open* and *free from weeds*, if you expect to make a good crop of corn. The mode, therefore, by which these objects are to be attained, becomes an object of deep concern. The plough, we have always thought, was too freely and too long used in the culture of this article. We are entirely opposed to ploughing after the corn has reached sufficient height to have sent out its lateral roots, across the intervening spaces of the furrows, because it is impossible, after that period, to plough without doing incalculable injury to the growing plants, in the cutting and destruction of the roots. While the plants are but a few inches high, great benefit is derivable from the use of the plough, for beyond all doubt, pulverization is one of the happiest agents within the use of the agriculturist; but, as we have premised before, it may be carried too far. After the lateral roots branch out to any considerable distance, it is best to use the *harrow* and *cultivator*, these implements both serve to open the soil to the influence of the atmosphere, the sun and weather, without exercising any pernicious effects upon the roots of the plants. The opinion is too generally received as correct, that the working of corn during a *drought* is the cause of its *firing*. We believe, that wherever corn *fires* after such ploughings, that it may be traced to the circumstance of its roots being cut at a time when there is not moisture enough in the earth to nourish and counteract the deleterious effects resulting from the bleeding of the roots. If the roots be essential to the growth of the plant, and all must admit that they are, it is important that they be preserved in their integrity of form and volume—every portion of them being intended to answer some valuable purpose of extracting or imbibing nutriment from the earth. Deprive an animal of the means of conveying food into the stomach, and death must supersede, and surely it cannot rationally be presumed that if the source of deriving aliment be measurably destroyed, that the vegetable thus injured can flourish in perfect vigor; on the contrary, in proportion to the extent of injury which the roots may sustain, will be that which the plant suffers, for in the same proportion that you withhold food from the stalk will its fruitfulness be decreased.

Give to each hill of corn as early this month as possible,—indeed it should be done when the corn first comes up,—a small portion of spent ashes and plaster.

BUCKWHEAT.

This grain should be put in this month, and as the sooner it is done the greater the security there will be that its ripening will not be arrested by untimely frosts. And here let us for once persuade each of our readers to put in an extra quantity; we are solicitous on this head, because we are desirous of adding to the quantity of provender for the cattle, and we believe that no better hay can be given to milch cows than that made from the straw of buckwheat.

POTATOES.

Dress your ground early, and put in your late potatoes, and recollect that if you would make a good crop, you must keep your potatoes free from weeds, and the earth around them open.

CUTTING AND CURING HAY.

In haymaking bear in mind that the rain should never catch your grass in swarth: that to cure it in the greatest perfection, it should be alike preserved from rain and sun; that the best plan to do this is, after one day's exposure in swarth to the sun, your grass should be put into cocks and turned each day until cured after the dew is off; that your clover should be salted when put away in mow or stacks, and that if alternate layers of clover and straw be placed in the stack, the former will keep better, and the latter prove as acceptable to your stock as hay.

RUTA BAGA.

Get in your *ruta baga*, if possible, by the 10th of the month, and in preparing your ground do not spare either manure, ploughing or harrowing; they can be raised either in drills, or broadcast.

TURNEPS.

Sow a few for autumn use, and while you are providing for your own table or market, recollect that your cattle would be grateful if you were to put in an acre for their use, to afford them succulent food at that season when green herbage is scarce.

MILLET.

This vegetable product may be sown any time during this month, and indeed, up to the 15th of July, either for hay or grain. Those who may not have a sufficiency of land in grass for hay, cannot do better than to put down a few acres. If sown in good light sandy loam, well manured, it will average from 2 to 4 tons to the acre.

PUMPKINS.

No farmer or planter should omit to put in among his corn a few acres of this excellent and substantial plant. For early winter feeding there is scarcely any product of the earth better adapted for farm uses. We are aware that an objection has been made to its use by some as food for hogs, on the ground that it is scouring, but this objection is easily removed by cooking them, which process not only renders them more palatable, but greatly increases their nutritive properties, by concentrating their saccharine matter. With others another objection has been urged; we allude to the difficulty of ploughing the corn; but this is more ideal than real; for if put in after the corn is up, before the vines assume any considerable length the corn will be nearly ready to be put by. But should it be otherwise, it would be an easy matter for a careful hand to precede the plough, and turn the vines out of the way until it should have passed, when the vines could be replaced. This labor could be performed without any serious inconvenience as to time, and as the pumpkins would not materially subtract from the yield of the corn, while they would immensely add to the solid comfort of the barnyard dependents, we do hope that such of our readers as are not in the habit of cultivating them, will now commence the good work.

Our Country—Agriculture—Silk.

The present unexampled depression of trade; the great derangement of our money matters; the high prices of most of the necessaries of life; and the utter prostration of thousands who thought themselves rapidly advancing to wealth, seem to require of all a careful examination of the causes which have led to these disastrous results, and an adoption of the best means of lightening the pressure, and forever preventing its renewal. So far as the inquiry involves financial or political considerations, the columns of the Farmer are not deemed a proper place for their discussion; but it appears to us that the great interests of the nation, which it has been the aim of this journal to advocate and enforce,—*the improvement and extension of our agriculture, and the more complete development of our ample resources*,—cannot be more forcibly presented to the American people than by the present position in which we find ourselves placed.

With a country confessedly the richest in the world; embracing all the varieties of soil and climate required for the production of all the necessaries, and most of the luxuries of life; and a population proverbially active and intelligent; we find ourselves purchasing bread of foreign nations, and involved in a debt beyond our present ability to pay, without the most ruinous sacrifices. Such a state of things ought not to exist; it is a shame to us to be importing wheat from abroad, when that article has, and should still, form an important item in our exports. The existence of such a fact would almost justify the charge, and the continuance of it will certainly subject us to the allegation, of being unable to appreciate the natural advantages bestowed on us by heaven, or if appreciated, not possessing the energy and forethought necessary to render them available.

Nearly one-third the population of the United States are engaged in the production of a single article—cotton. Their bread, their meat, their clothing, they buy; and as the times and the prices of cotton have been, the planters have found themselves getting rich with unwonted rapidity. But by this course, the south has placed themselves, and in a great measure all the commercial and manufacturing interests of the country, completely at the mercy of foreigners. *They* have touched the article of cotton, have reduced its price at their pleasure, and the prosperity of the nation seems at once crumbling to dust. There must be a change in these respects. We boast of our independence, and find ourselves slaves to foreign merchants and brokers; we pride ourselves on the inexhaustible fertility of our soils, and buy our bread of the impoverished regions of Europe; we talk of our advancement in wealth, of our manufactures and our commerce; but as if on purpose to disturb the pleasing illusions of our day dreams, half a dozen men, the directors of a single monied institution in England, readily convince us that with all our boasted prosperity, we can scarcely pay our debts.

The remedy which common sense points out for this deplorable state of things, is not to rid ourselves of the present difficulty by new promises to pay hereafter; but to go to work like honest, independent Americans,

and by the improvement of our agriculture, by its extension, and by the introduction of new sources of prosperity, depending on our *industry* and our *soil*, to place ourselves above the fluctuations of trade, or the liability of being dunned by foreigners. In the first place we must raise our own bread. Every section of the Union can do this; and the south as well as the north must engage in the business with spirit. If the south raised but half the cotton they now do, and turned the surplus labor to the production of bread, they would probably realize as much profit as they now do when forcing their millions of cotton upon the glutted markets of Europe. So far as the farmers of the north are concerned, they have personally nothing to complain of; but they must be sordidly blind to their true interests to desire wealth or success in agriculture, at the expense of any section of our country, or body of our citizens. They feel that the failure of every house in New York or New Orleans is a blow aimed at public confidence, and that as members of the same great family, what is felt by one must eventually more or less be felt by all.

An anxiety to be rich without labor has become our besetting sin; and those who of all others ought to know and feel differently, farmers and farmers' sons, have been among the most active in bringing about this state of things. The professions have long been crowded to overflowing, yet our young men, as if the cultivation of the soil implied dishonor, or to handle the axe or the plough was a disgrace, still cling to the hope of a professional living, and as a natural consequence we have among us too many idle drones, too many who are willing to get their living by hook or by crook, rather than by honest, persevering and honorable industry. This unhealthy state of feeling must be corrected; and the mind of the young impressed with the truths, that of all aristocracies, a moneyed one is the most oppressive, but an aristocracy of idleness is the meanest and most detestable.

We must extend our agriculture until it shall furnish abundance of the necessaries of life, and with the blessing of Providence, place beyond the possibility of want all classes that are willing to be industrious and live within their means. We must depend on agriculture in a great measure for our remittances abroad, and this surplus should be made as large and available as possible. No matter what may be the forms or modes adopted to procure it, the origin of wealth is the earth; and the more extensive and perfect the culture of the soil, the more sure and firmly based is the individual or national prosperity.

In addition to this, we must develope new sources of productive industry, and render ourselves to the utmost independent of the favour or the caprice of foreign nations. No man in his senses will at this time of the world advocate the Chinese or terrapin system; yet there can be little danger of a want of exchangeable articles sufficient to give the commercial interests full activity, even when we shall produce for ourselves all the important necessaries and luxuries of life. Few farmers have an idea of the immense drain constantly made on the capital and prosperity of the country, in paying foreign nations for commodities which, with a little skill and exertion, we might abundantly produce among ourselves. We shall not be accused of exaggeration when we say that fifty millions of dollars are annually required to pay France and Great Britain for things which we can produce better than they, were the enterprise and industry of our people but sufficiently directed to one or two points, and that too without interfering in the least, or but very little, with any of our present sources of profit or industry.

We have room here to refer to the single item of *silk*; though we might with equal propriety embrace ordinary woollen goods, sugar, and iron, as things we should furnish not only for ourselves, but for exportation. The letter of Mr. Judson, Member of Congress from Connecticut, to Mr. Adams, as chairman of the committee on manufactures, is a valuable document, not only as exhibiting the importance of the silk business as a branch of national industry, but also showing the progress already made in this new, and as we believe, most profitable investment of labor and capital in this country. In one respect the silk business is different from most others; it requires little or no money for its introduction into families, and experience in France and Italy conclusively proves that it is here carried on with the least care and the greatest profit. Unlike other farming pursuits, the silk manufacture is best managed by females and children, and the labor of only a few weeks is required to convert the mulberry leaves into an article fit for market, and commanding a price of ample remuneration.

The importance of the silk manufacture to us may be inferred from the fact, ascertained by a reference to the collector's returns, that the importations of *manufactured silks* during the year ending on the 30th of September, 1836, amounted to *seventeen millions, four hundred and ninety-seven thousand, nine hundred dollars.* This sum saved to us, as it might be by home manufacture, would have in a great measure prevented that rude commercial shock which is crushing the prosperity of the principal cities to

the dust. Silk goods we must have; their cheapness, durability, beauty, all conspire to render them one of the necessaries now, as they formerly were one of the luxuries of life; and the demand for them is rapidly increasing. Would it not be good policy to retain a part or the whole of this sum at home? Experience has shown that the climate of the New England and middle states is excellent for the growth of the mulberry and the habits of the worms, as well as distinguished for the fine quality of the silk and size of the cocoons. Two years since, northern Italy, with a comparatively trifling population, sold silk, raw and manufactured, to the amount of five millions of dollars; and New England alone, in five years from this time, might produce as much.

Not one of the least promising indications that our country is destined to become a silk growing one to a great extent, is the success which has so far attended the efforts of those who have engaged in the business, and indeed the whole process is so simple and easily conducted, that where mulberry leaves and the eggs of the worm can be procured, it is hardly possible to fail. The principle of association is beginning to be brought to bear on this new source of national wealth, and companies for the production and manufacture of silk have been formed in most of the states; and though scarcely a bushel of cocoons could have been procured in the country previous to the last year, some of these establishments have already turned out from ten to forty thousand dollars worth of goods from our native silk. In Massachusetts there are five or six companies with an aggregate capital of some half a million of dollars—vast plantations of the mulberry, both Italian and Chinese, are growing—and the state, with commendable liberality, has granted a present bounty of two dollars per pound on all silks grown, reeled and throwed; or in other words made ready for the manufacturer; a sum considered by competent judges nearly sufficient to defray every expense in the whole process of growing and preparing. We hail with pleasure the rise of this new item of national industry and profit, and shall watch its progress with interest; viewing it as we do, not as merely a question of dollars and cents, though even here it is important, but as a new link in the chain of cause and effect, which will bring into action new energies, promote industrious habits, and render us eventually less dependent on foreign nations, and of course less at the mercy of their enmities or their friendships.—*Gen. Far.*

The wisdom of a wise man will be seen in his seeking *most* to know the things most important to be known.

Wheat—Important Discovery.

The New York Farmer publishes a letter from the Rev. Mr. Coleman, announcing an important discovery for the destruction of the grain fly.

The grain fly or insect, which, for a few years past, has been destructive to wheat in many parts of the country, has this year extended its ravages, and excited, wherever he made his appearance, very serious alarm. An eminent farmer in the state of New York wrote to me a year since, that he must give up the cultivation of wheat, as his crops were so much injured that he hardly obtained a return equal to the seed sown. I knew another instance in the same state, where, though the straw was large, and the appearance promising, yet from thirteen bushels sown not more than seven were obtained.

I have known other cases in which the whole field has been mowed and sold for litter; and in a recent excursion up the valley of the Connecticut I have heard complaints every where, and hundreds of acres so destroyed that the grain they would yield would hardly pay for reaping. Besides this, the same insect has destroyed many fields of rye in the same manner as the wheat, and had been found this year in the oats: the progress of the insect has been about forty miles a year; and a distinguished gentleman in Vermont, a practical and extensive farmer, remarked that he feared they would on this account be obliged to relinquish the cultivation of small grains.

The habits of the insect have not yet been accurately observed. I myself have not yet seen the fly, but have seen the worms in the kernel after the grain has been destroyed. He is represented as being a small reddish fly, which is seen hovering over the wheat fields in immense numbers, while just in flower, and has been observed to light upon the kernel or bud, to ascend it, and then descending to the inner side, to deposit his egg between the stalk and the kernel. I purposely avoid the use of all scientific terms, wishing to be understood by common farmers. From this egg the worm is generated which entirely consumes the grain while in the milk, leaving nothing but the husk, in which are found several yellow worms, about an eighth of an inch in length. As the work of destruction is now completed, any farther observations are of no importance, unless we can some way reach so as to destroy the germ of the insect. No preparation of the seed or ground, has yet been found effectual to this end.

The continuance of the fly upon the grain is thought not to exceed three or four days, and they are seen in great numbers just at night. Some farmers have found late sow-

ing a partial security as the season for the flies has passed away before the wheat was in condition for their attack.

Spring wheat sown as late as the 7th and 8th of June, has been untouched, though in case of such very late sowing, the farmer will be fortunate if, in attempting to escape the fly, he does not get nipt by the frost.

I have now, however, the extraordinary happiness of announcing to the agricultural public, what there is reason to believe, will prove an effectual, as it is a reasonable and feasible preventive. Should it prove effectual, the remedy will be worth millions and millions of dollars to the country. It was communicated to me, on a late tour of agricultural inquiry and observation, by Dr. Eliquant Lyman, of Lancaster, N. H., an intelligent, enlightened, and practical farmer, whose crop of wheat usually averages from 25 to 30 bushels per acre. It consists in the application of fine slacked lime to the wheat just at the time of its heading out and flowering, at the rate of about a peck to the acre.

It is sown broadcast upon the wheat while the dew is on, and the field is rendered white with it. The best mode of applying it is with the hand, and for the person who sows it, taking his proper breadth or cast, to walk backwards, so that he may not cover himself with the lime. It must be sown while the wheat is wet or the dew is on, and the philosophy of its application is very simple. The maggot of the fly is deposited between the grain and the stalk. It is, of course, an animal substance. The lime, or alkali, mixed with the dew, is carried down upon, and neutralizes or destroys it. Dr. Lyman has now tried this preventive three successive years, and has invariably, as he assures me, saved his crops, while those of his neighbors have been destroyed.

I visited, at the same time, the field of a Mr. Bellows, in the same town, who had been advised by Dr. Lyman to make this application. The field consisted of several acres. He did it; it has proved successful, and what is strongly confirmatory of the value of this remedy, is the fact that a field of rye, belonging to Mr. Bellows, adjoining his wheat, and I think within the same enclosure, which was not limed, has been nearly destroyed by the fly.

These are certainly very important experiments, and I made no delay in presenting them to the public. Dr. Lyman has promised me a more particular account of the experiment and result, and likewise Mr. Bellows, which as soon as received, I shall be happy to communicate. I have received indirect and indefinite communications that the same experiment has been successfully made in Gilmanton, N. H.; but I have not yet been able to obtain either the name or the details.

HENRY COLEMAN.

Meadowbanks, May 15, 1837.

The following article was handed to us by an esteemed friend, from Pemberton, N. J. It is taken, we believe, from the Graziers' Guide.

Symptoms of Murrain.

Decrease of appetite, a stretching out of the neck as if there was a difficulty in swallowing; a shaking of the head, as if the ears were tickled; a hanging down of the ears, and deafness, a dullness of the eyes, and a moving to and fro, in a constant uneasiness.

All these signs, except the last, increase till the fourth day; then ensues a stupidity, and unwillingness to move, great debility, a total loss of appetite, a running at the eyes and nose, sometimes sickness, and throwing up of bile, a husky cough and shivering. The fever which was continued the three first days, now rises and increases towards the evening. The pulse all along quick, contracted, and uneven, a constant diarrhœa or scouring of fœtid green excrement, a stinking breath, a nauseous steam from the skin, infects the air. Tumors or boils are to be felt under the fleshy membrane of the skin, and eruptions appear all along the limbs. These symptoms increase till the 7th day, when the crisis or turn takes place, for better or worse.

REMEDY.

As soon as there is reason to believe the animal is infected, remove it from the rest, and put it by itself in a house or shed well ventilated. Bleed it copiously, even to fainting, wash the body all over with water and vinegar, milk-warm; to clear the skin from filth, rub it frequently, and it will derive much benefit from the pores being open.

Make a rowel as soon as possible in the dewlap, and keep it open till a cure be effected. If the dung be hard, a cooling purge of 4 oz. of alum in powder, 1 oz. nitre, 1 oz. each of grains of paradise and anniseed powdered, ½ dram solid opium cut small, 4 table spoons of molasses, and plenty of drink of bran water, vinegar, bitters and salts, diluted with water; but no hay till the beast is sufficiently recovered to chew the cud; if a purging comes on by the fourth day, check it by warm medicines, as snake weed or venice treacle, or the following drink: 4 oz. prepared chalk, 2 oz. powdered anniseed, 1 oz. powdered ginger, 1 dram opium cut small, mix and give it in a quart of warm ale or gruel.

All the litter used about an animal sick

with this disease must be burnt. All the cattle that die of the complaint should be buried at least 5 feet deep, to prevent the effluvia, that would otherwise arise from the carcass, and *inevitably* spread the infection.

Importance of Destroying Weeds.

The abundance in which weeds are seen in some fields, shows conclusively that but little of the mischief caused by them is understood. Weeds are injurious to the land and to the crop in almost every possible way that they can be. In the first place they exhaust the soil to support their own useless growth, and abstract that nourishment from it, which ought to go exclusively to support the crop. Secondly, they crowd upon other plants above ground, prevent them from branching out at their roots, and deprive them of a free circulation of air necessary for their health and vigor, so that they shoot up only single, weak, sickly stalks, incapable of producing a valuable crop. Thirdly, they throw off from the soil through their leaves into the air, an almost incredible quantity of moisture, and speedily reduce the ground to so dry a state, as to be fit for weeds only to grow in. So enormous is the quantity thrown off by some plants that it actually exceeds more than twice their own weight in a single day. A bunch of grass, placed during a very dry season, under a large vessel, sent off moisture in two minutes, so as to cover the vessel with drops, which ran down its sides. Dr. Watson, who first performed this experiment, was led to conclude from its results that an acre of grass exhales more than thirty hogsheads a day. Plants are in fact but channels through which moisture is conveyed up from the soil to be dissipated in the air; hence the absurdity of the opinion that weeds will prevent the ground becoming dry by shading it. Let any one in dry weather examine a piece of perfectly bare soil, a few inches below the surface, and compare its degree of moisture with that of soil at an equal depth, near the roots of a thick growth of weeds, and he will find the difference astonishing.

Now, of what use is it to attempt raising crops if they are to be wasted by a growth of weeds? Of what use is it to buy land, and plough it, and prepare it, and put in the crops, if after all, these crops are suffered to be *eaten up* by such intruders? If a drove of cattle should break into a field, no one would think of resting a moment till they were driven out; and yet many allow myriads of noxious weeds to overspread their lands, often doing three-fold more mischief, with scarcely an effort to check their progress. And this is not only permitted in cultivated fields, but in meadows and pastures, which are sometimes literally covered with Canada thistles, St. John's wort, and many others, to the total exclusion of every thing else from the soil.—*Germantown Telegraph.*

Go the right way to work, brother Farmers.

I am sorry there is so much need of the admonitions I am about to give. Depend on it, you do not "*work it right*," or you would make your farms and stock twice as valuable as they now are. Many of you *farm too much.* You would find it much more profitable to farm twenty acres WELL, than forty by halves. The last season I made my ground produce at the rate of one hundred bushels of Indian corn to the acre. Is this not much better than a common crop of thirty or forty bushels? You will certainly say it is, and with the same breath ask how I manage to make it produce so plentifully? My land being much infested with ground mice, or moles, and overrun with grubs and other vermin, I put on, early in the month of March, about seven bushels of salt to the acre, which thoroughly destroys all kinds of vermin, being an excellent strong manure, and ploughed and worked the ground over and over until it became completely mellow; I then had every corn hole filled with hog manure, and after dropping my corn (which had been previously soaked in warm water) I had scattered a pint of lime over every hill, and then covered the whole with a little mellow earth. In about a week the corn began to come up plentifully, after which I nursed it with the plough and hoe, every other week for eight weeks, at which time it was as high as my head, and not a spire of it was destroyed either by the frost, grub or birds. My other things I manured and nursed equally well, and I have been amply paid for all my extra care and trouble, as I raised more than twice as much per acre as any of my neighbors, and did it in much less time. I mean I got all my harvesting done two or three weeks before many others. This is accomplished in a great measure by redeeming time; rising between three and four o'clock in the morning; then if the day be very sultry and hot, I lie by from twelve to three and rest. I then feel refreshed and able to work until quite dark. This I call "*working it right;*" whereas, should I lay in bed until the sun be up and shame me, haunt the tavern at night, drink whiskey, but half manure, half plough, half plant, half nurse, half harvest, and do every thing by halves, I surely should not "*work it right*" nor get a half crop.

I shall now conclude by giving you for further consideration, a few excellent observations from a wiser head, perhaps than my

own, which I shall endeavor to improve for myself, and hope every brother farmer will do so likewise.

"I often say to myself, what a pity it is our farmers *do not work it right.* When I see a man turn his cattle into the road to run at large, and waste their manure during a winter's day, I say this man *does not work it right.* Ten loads of good manure, at least, is lost in a season by this slovenly practice—and all for what? For nothing, indeed, but to ruin his farm.

So, when I see cattle late in the fall or early in the spring, rambling in a meadow or mowing field, pounding the soil and breaking the grass roots, I say to myself this man *does not work it right.*

So when I see a barn yard with a drain to it, I say the owner does not work it right, for how easy it is to make a yard hollow, or lowest in the middle, to receive the moisture and all the wash of the sides which will thus be kept dry for the cattle. The wash and moisture of the yard mixed with any kind of earth or putrid straw, is excellent manure; yet how much do our farmers lose by neglecting these things; in fact they *do not work it right.*

When I see a farmer, often going to the retailer's store, with a bottle or jug, lounging about a tavern, or wrangling about politics, or quarreling with, and defaming his neighbors' good name, I am certain such a man *does not work it right.*"

AN OLD FARMER.

Matters in General.

ROLL YOUR GARDEN BEDS.

Seeds will come up much better on ground rendered fine, and then rolled or pressed smooth. The reason is, the earth is brought in contact with the seeds, and a chance given to vegetate. There are fewer places for insects to skulk and hide in, and of course less danger of the plants suffering from their depredations.

KEEP YOUR HOES SHARP.

Very likely your grandfather, and perhaps your father never heard of such a thing as grinding a hoe; but no matter, try it for yourself, and see if a sharp hoe does not work as much easier as a sharp axe. You would think yourself poorly provided for mowing, without rubstone or rifle; and a file for sharpening a hoe, is as necessary, where facility of labor is consulted, in the field of corn, as the former implements are in the meadow.

GOING TO GRASS.

Don't be in a hurry to turn your animals to grass, if you have any thing in your barn to feed them on. Horses or cattle turned out early, trample your land, destroy the roots of the grass, refuse good hay afterwards, and in all probability fall away rapidly for some time. Pastures should not be turned into until the grass will afford a good bite: this gnawing for a living is hard work for an animal. If necessity compels you to let out your cattle, always use your driest pastures first as they will poach least. If you are a farmer you will have your pasture divided into several fields, and turn into them in succession.—Milch cows pay best for good feed, horses next, and sheep will do well where the others would starve.

KILL THE WORMS ON YOUR FRUIT TREES.

With the leaves and the blossoms will come the worms, and the earlier the attack is made upon them the better will it be for your fruit trees, and the easier the labor of destroying them. When the sun first warms them into existence, and they leave their honeycomb nest at the extremity of the twigs, the slightest touch is sufficient to destroy them, but when they have lived to spin their web, have grown on the destruction of the young buds and leaves, and been inured to the weather, they are a formidable pest to the farmer and proportionably difficult to subdue. A small swab or brush on the end of a long rod, dipped in a ley made of wood ashes, or pretty strong soap suds, applied to these young colonies of worms is effectual to their demolition. If the operation has been delayed, and the web is thick, it must be broken up by winding on the pole or rod, or the liquid will not touch them. The morning is the best time to apply the ley, or suds, as the worms are then in the nest. When the sun is up, they leave the nest, mostly, and disperse over the trees for feeding.

SWEET ELDER.

This is a bad shrub where it gets foot-hold, and is one of the most difficult to exterminate. It is besides good for nothing, and so completely occupies the ground as to exclude all other vegetation. Cutting seems rather to benefit it than otherwise, certainly such as it gets in mowing, as in meadows it always spreads more rapidly than elsewhere. We have seen it stated that while the plants are young and vigorous beating them to the ground with a pole so as to bruise and strip the whole, will effectually destroy them. It is possible that the bruised juices, from their changed nature, may operate on the plant like those from a gangrened wound on the animal system and cause their death. There can at any rate be no harm in trying the experiment.

CANADA THISTLE.

This monarch of agricultural pests, has as many lives as a cat, and bids defiance to all ordinary methods of extermination. Mowing in the moon, or out of the moon, salting and sheeping, ploughing with crops and without, in short all the usual modes of destroying intrusive weeds have been alternately tried, and generally without success. The only method we have yet tried that has been crowned with entire success, is to cut them several times in the summer an inch or two below the surface of the ground, or repeating the operation as fast as shoots appeared. We have in this way destroyed numbers of small patches; and it is in this state the thistle can only be assailed with a reasonable prospect of destroying them effectually. Mowing or ploughing repeatedly, will check their growth and prevent seeding, but will not in ordinary cases ensure their destruction.

ST. JOHNSWORT.

This stinking, poisonous weed, is becoming quite too common in our fields. Independent of its almost entire occupation of the ground, its spread is to be regretted on account of the injurious, and sometimes fatal effects, it has on animals confined in pastures where it is common. We have seen young cattle and sheep die in consequence of being driven to feed on it; and nothing is more common than to see horses that have white feet or noses with the skin on such parts highly inflamed in consequence of exposure to this plant. If you have it on your farm, mow it and burn it carefully, to prevent its spreading by seed; and where only a few stalks appear, do not rest until the last root has been extracted by the hoe.

PISMIRES, OR ANTS.

Now is the time for those who have pots of honey, or tubs of sugar and molasses, to be visited by these little insects; and if suffered to make an undisturbed acquaintance, their visits will be made so frequently and by such numbers, that serious loss and trouble will ensue. To prevent their attacks some have recommended a piece of camphor to be suspended in the vessel containing the sweet, yet not to touch it; and this, if done before they get a taste, will probably keep them away. But if they have once found their way in, they will continue to feed in spite of camphor. The best way where these insects are plentiful and voracious, is to insulate the vessels containing the sugar or honey. This may be done by making a platform of a plank with short legs, and placing these in shallow earthen or tin vessels, which are to be filled with water, which is to be renewed as often as necessary. This, however, is only a preventive. To destroy them, next fall just before the ground freezes, finally, and after they have assumed their torpid state, go around to their hills, and with a shovel or spade cut out the centre below their habitation, and scatter it on the surface. If in that situation, they or their young, can stand such winters as we have had for two or three years past, why, then they are tough fellows, that's all.

TO KEEP OFF BUGS.

Parkhurst says, that "melon seeds soaked twenty-four hours in a decoction of tobacco and water, will be effectually protected against the bugs." If it will do this, it will do the same on pumpkins, squashes and cucumbers. But the best method we have ever seen tried, next to the daily application of a squeeze with the thumb and finger, is to place a portable coop containing a hen and chickens in the midst of a bed of melons or cucumbers. The chickens will do no injury, and will speedily exterminate the whole race of bugs that may infest the premises.—*Gen. Farmer.*

Curing Clover Hay.

Clover hay should never be scattered out of the swath, because in addition to the labor in scattering and again raking up, the hay is thereby greatly injured. Indeed, if the weather be favorable for curing, neither timothy nor any other kind of hay should be scattered, because the less any grass is exposed to the sun and air in the process of curing, the greater will be the value of the hay, and the less the labor required.

Let the clover lay in the swath untouched, until about two-thirds of the upper part be sufficieatly cured, which in good weather will, if the swath be tolerably heavy, be effected in eight or ten hours; if the swath be light, in a proportionably shorter time, when thus far cured, turn the swath bottom upwards with the fork, an operation speedily performed. Let it then lie exposed to the sun until the under side be cured, which will be, according to the thickness of the swath, in from four to six hours, then throw three swaths together in windrows, and commence hauling in, the wagon running between two windrows and loading from each. It can hardly be necessary to observe, that all these operations must be performed after the dew has dried off. It is to be recollected that clover will keep with less drying than almost any other grass. A common test is, to take up a bunch of hay and twist it, if no juice exudes, the hay may be hauled in with safety,—we have often hauled in clover cut in the morning, in the evening, and always the

succeeding day, unless prevented by bad weather—sprinkling every layer of hay with salt, at the rate of 12 or 15 lbs. to the ton, or interposing a layer of dry straw, from 6 to 12 inches thick, between every two layers of clover of the same thickness, we found a great preservative; and especially the latter mode will enable the farmer to put up the hay in a far greener state, than could otherwise be done with safety. Besides this advantage, the straw interposed between the layers of hay, by absorbing its juices will be rendered much more valuable as provender, and if salt be sprinkled on the hay will be greedily consumed both by cattle and horses. From the great quantity of this grass produced on an acre, its highly nutritive quality, the ease with which it is cut and cured, farmers will find that clover hay is the cheapest food on which they can keep their stock in good order during the winter. If put up in good order in the fall, sheltered from bad weather, and salted, both horses and cattle will keep fat on it alone throughout the winter, without the aid of grain, unless when worked.

The prevalent notion of the difficulty of curing clover hay, is entirely erroneous. In a climate like ours, there will seldom be found any: in a wet and cool climate, like that of England, the difficulty may exist to some extent, as clover when put in cocks will not resist rain as well as timothy and some other grasses; but in the course of fifteen years' experience, we have seldom lost any or had it much injured by the weather, indeed we have found it comparatively easier to save clover hay than corn blades, and as three or four tons of the former, with the aid of plaster, can be made at less expense, than one ton of the latter, the farmer must be blind indeed to his own interest, who does not take care to provide himself with at least as much clover, as will furnish an abundant supply of provender for his stock.

Clover should be cut for hay when about one half the heads have become of a brown color. If cut earlier, it is believed the hay will not be so nutritious; if later, the stems will have become harder, and the grass be on the decline. For hogs, however, and young stock, it will be advisable to cut some so soon as it is in full bloom; when cut in this state and salted, hogs are very fond of it, and it is believed might be chiefly wintered on it, if otherwise carefully protected from inclement weather. At all events, by the use of it as a food for hogs in part, a great saving of corn may be effected.

When the farmer can do it he will find a great advantage in providing himself with long, narrow, and high sheds, open at least on the south side for the preservation of his clover hay, and when hauling it in, to begin at one end, and spread a layer of hay along the whole length of the shed, and then repeat the same process; by this means, he will be able to put up his hay, in a much greener state than could safely be done, if put either in a stack or mow, and as yet there are but few persons in this country sufficiently expert in the art, to stack it so as to ensure its preservation. In narrow sheds, one load is considerably dried before another is thrown on it, and when the sheds are filled, the narrowness of the bulk being so much greater, there is far less danger of injury to the hay by heating.—*Tennessee Farmer.*

Ridging.

Soils for root crops should always be rich and deep enough to require no ridging; but when a soil is fertile and shallow, better crops are frequently raised by throwing it into ridges than leaving the surface flat, because in this ridge the fertility is accumulated. Hence some have supposed that ridging should be performed in *all* cases.—*Genesee Farmer.*

The manner of cultivating Ruta Baga and Mangel Wurtzel in Europe, has familiarized those who have grown them in this country with *ridging* for either of these crops; but we confess we are not satisfied as to the propriety of that mode of culture, except under peculiar circumstances of locality. In England, where from the extreme humidity of the climate, there is no danger to be apprehended from exposure to the rays of the sun, ridging may be of great service in concentrating the manure in the immediate vicinity of the growing plants; but in most parts of this country, we think the practice injurious, inasmuch as the plants from their elevated position are subject to suffer from drought. If a concentration of food for them be the great object to be attained by ridging, that can be equally as well effected by placing the manure in a furrow, covering it over, smoothing down the surface to a level, and planting on the top in the centre of the manure.

Most all the authorities prescribe the ridge form for the culture of these roots; but those who have done so in this country, have not, we apprehend, considered the difference in the climates of this country and those of Europe where they are grown. Last year, our Ruta Baga was grown on a fine rich loam, with a southern inclination and exposure, and we do know that they suffered from solar influence, and taking counsel from experience, we shall give them *this* season a flat surface, believing it better adapted to our climate than the ridge form.—*Ed. Farmer and Gardener.*

Stimulation of Soils.

BY THE HON. JOHN WELLS, OF BOSTON.

From a frequent perusal of the benefits derived from lime in its application to soil in Europe, I have been induced for more than a score of years, successively, to make use of it for agricultural purposes to the extent of more than one hundred casks annually.

One of my first experiments arose from a desire to give a top-dressing to a piece of land, which it was otherwise inconvenient to do. The soil was a heavy black loam. Having a quantity of black earth from a trench, (or top stratum,) I procured a quantity of lime. A bottom of four or five buck loads of earth was first placed; then a couple of casks of lime were spread thereon; then earth and lime again, till my materials were used, or the quantity needed was had at the rate of eight or ten casks to the acre. Thus a cask being supposed to produce about five bushels of slacked lime, the cost of which, if the casks are swelled and the lime partly slacked, is eight to ten cents a bushel. This is the most moderate application in Europe, and the cost is about the same.

This mixture after lying twelve or fourteen days, was shovelled over, and after some days being found fine and well mixed, was spread from the cart on the ground. To my surprise, I found the effect produced to be equal to what is usual from common compost manure!

In England, where lime is most used for agricultural purposes, it is considered that in its crude state, or uncalcined state, it is most beneficial, if pounded or made fine. This, where limestone abounds it is well to know; but there is little of it in this neighborhood. Encouraged by this experiment, I continued to purchase and apply considerable quantities of damaged and air slacked lime in my cultivation, particularly for a low flat piece of land. This being intersected with small ditches, furnished the earth, I was not able otherwise to procure to mix with the lime. It is not well, however, in such cases, to lower the surface by taking off more than will keep the ditches open. When the earth is tough with sward, &c., it may be made finer by being carted out and put in heaps on the ground, and spread aferwards. Indeed this is done to great advantage in the winter. The poaching the land or making a rough surface for the scythe being then well avoided.

As this land cannot advantageously be ploughed, I have in applying every third year, a top-dressing, as my custom is, alternated, giving first a dressing of earth and lime, and at the expiration of three years, a coat of compost manure.

This has been done on the principle that a more judicious mixture would be made, and a better composition of soil be had. I have been guided herein from general reasoning—not from any proof that the lime might not be repeated.

It seems, however, to be a prevailing opinion, where lime has been most in use, that it opens the sod and makes it more porous, giving thereby a better action to other manures, which a judicious husbandry should in succession apply. In this application of lime to a grass sward in a deep springy soil, I have been for a long time well satisfied. It was several years before I undertook the same practice on a light soil, and I did it with less expectation. But I was somewhat surprised to find it equally beneficial.

So far lime has been mentioned as a component article in top-dressing for a green sward. Its effect will be shown on ploughed land, and in a grain crop.

* * * * *

I had a piece of ground of about four acres, of rather light soil, which gave promise of a very small crop of grass. Being without the means of obtaining manure, as I had a quantity of earth of the top stratum, taken on building a wall, I forthwith procured a quantity of lime and mixed it in the manner before mentioned. About the middle of June I had the grass mowed and the land ploughed. The lime compost was then spread and harrowed in. An early sort of yellow corn, which, when ripe, husked itself was procured. And my neighbors, who knew the process, were, in the fall of the year, much surprised by the stout ears of golden grain that unfolded to view!

I trust enough has been said to show the beneficial use of lime. Whether it acts on the atmosphere only; or as a stimulant to the soil, or actually contains (as is strongly maintained by some) within itself the food for plants, is well worthy of discussion.

But whether either of these causes separately or they altogether conduce to the nutrition of plants, an advantageous effect of the use of lime on soil seems conclusively to follow. I have endeavored to avoid nice discriminations and have stated my practice plainly, not from its novelty to many of your readers, but because not only a great waste is made of this article, but it is believed that as its average price in good condition is about ten cents, it may be used to good advantage. So also it is with mortar, rubbish of walls and chimneys, plaster, &c., from old buildings.—These, (and it is somewhat relative to this discussion) I have made use of as a top-dressing to low soil to very good effect.

It has been observed that if lime is a fertilizer of soil why is it that where it abounds and often forms an under stratum, a greater fertility does not prevail. To this it may be

answered that lime is a constituent principle, it is believed, in all soil, and may be supplied, where from experience a deficiency is found. But when it superabounds as in most other things excess may be injurious. In all this more experience is wished for as the only safe and profitable guide.

Preventing Milk from becoming Sour.

We mention the following fact more for the purpose of calling the attention of our readers to the subject and inducing them to try experiments, than with a belief that the single experiment related, will be of any great importance. Dr. Hare, of Philadelphia, in giving an account in Silliman's Journal of his experiments upon the essential oils, seems to think that the more acrid ones will resist putrefaction better than the mild ones. Among other experiments, he states that he found "the essential oil of cloves and cinnamon possessed an antiseptic power quite equal to that of Kresote."

"On the 2d of July he added two drops of oil of cinnamon to an ounce measure of fresh milk, it remained liquid on the 11th, and though it finally coagulated, it continued free from bad taste or smell, until September, although other portions of the same milk had become putrid." Now it may be possible two drops to the ounce of milk may render it a little too spicy for common purposes; but this fact may lead to the discovery of some substance that may be added, and while it does not injure the taste or qualities of the milk, preserve it a long time from becoming sour or from putrefying. Such a thing would be a great convenience to many families, especially those who are in the habit of purchasing their milk and do not wish it to become sour immediately.—*Maine Farmer.*

The Bee Moth.

Mr. Tucker—If you think the following worthy of a place in the Farmer, please insert it.

The cultivation of the Honey Bee has of late years, in this quarter, been attended with great loss in consequence of the attack of the miller or moth. I have noticed that when the wrens' nest immediately in the vicinity, that they fed upon the moth and frequently upon the miller, and will seek no other food for themselves and their brood so long as they can find sustenance from that quarter; and they will nest near by if there is a small box made for them to nest in, with a door so that they can enter, and raised up some 6 or 10 feet high, or the carcass of a horse's head raised up the same distance.

5th Month, 1837. Triangular.

Soiling with Merino Sheep.

Friend Fessenden—If it is thought that the following would be useful to the wool-growers it may be published. I should like to have some of them at least, try it, and publish the result of their experiment in the New England Farmer.

It is two weeks since I commenced keeping my Merino sheep twenty hours in the twenty-four, under a well ventilated shed, and supplying them plentifully with cut grass three times a day; allowing them to run out in an adjoining lot about two hours in the morning and two in the evening: keeping their shed well littered with straw, and the remnant of their fodder. Every few days we put a layer of earth for the purpose of sweetening the pen and making compost.—So far as I have tried the experiment, the sheep look well, and, I think, are improving.

Several advantages may be found in this kind of sheep management. 1st. They are kept out of the dew, rains and hot sun, which are said to injure both sheep and wool. 2d. We can keep our sheep from running over the cattle pasture, which we believe to be injurious to feeding cattle. 3d. A large stock of cattle may thus be kept as well as sheep. 4th. It adds to our stock of manure. 5th. The sheep are kept from dogs. The manure will fully compensate for the trouble.

Respectfully, M. P.

Chester County, Penn., 6th Month 23, 1835.

Bugs—Bugs—"O! the Bugs."

I do not mean bed bugs, but one of a different character, with a striped jacket which destroys our vines, squashes, melons, cucumbers, &c. being like that nondescript animal by some called the Garden Hog, in not waiting for them to come to maturity, but seize and devour them as soon as above ground, but very much like them as to their shyness, as they are "off," as the fly said, on the near approach of any one. Sir, I last year planted my cucumbers, &c. near where grew some tansy at one corner—soon after up, the "striped-jackets" attacked them, except those in the immediate vicinity of the tansy—observing this, I put around each hill some sprigs of tansy which caused the bugs to leave them, and by a few applications, so as to keep it somewhat green, were kept off, as the scent is strong and I believe not agreeable to them.—*Maine Farmer.*

Laborers.—When about to return to their homes, from their occupations, particularly in the evening, or in cool or damp weather, ought always to put on their coats or jackets, and by no means to return in their shirt sleeves.

From the Schenectady Reflector.

Flax Growing.

The impression has gone abroad among farmers that the raising of flax is unprofitable, from the fact that it leaves the soil in an unproductive state, unfit for raising a crop the following season. From whence this impression originated I am unable to determine, unless it is from the fact that the same piece of ground will not produce good flax several years in succession. Those who have taken pains to inform themselves by experience and observation have ascertained that flax does not impair the soil and render it less productive, as many suppose, but on the contrary it is rendered more productive.

In a conversation with an intelligent farmer the other day, he stated that he had raised flax and barley in the same field; that in the fall he ploughed and sowed this field to winter wheat, and that the wheat on the flax ground grew nearly a quarter larger than that on the barley ground, and yielding in the same proportion when threshed and cleaned out. The same gentleman also informed me that some years ago, when flaxseed was worth only $1 per bushel, he sowed 6 or 7 acres, and kept an accurate account of the expense of ploughing, sowing, harvesting, &c., which he deducted from the proceeds of the flax and seed, and found a nett profit of $35 per acre.

The foregoing induces me to submit the following problem for the solution of all concerned:

If flax-growing is as beneficial for preparing the soil for other crops as is represented above, and if land, well cultivated, will produce a crop of flax worth $35 per acre, over and above the expense of cultivation, &c., and that too when flaxseed is worth $1 per bushel, what other crop can be put in the same soil equally lucrative, especially when the seed is worth $1 50 per bushel? E.

To Farmers. — Attend to water courses, so that your land may receive all possible benefit from irrigation. If you have any land (especially mowing lots) which is so situated that you can turn the wash of a public high way over it, you will act wisely in availing yourself of that circumstance. The wash of the roads, early in the Spring, is highly charged with fertilizing particles, and one pail full is worth a barrel of that which flows from a Summer shower; and if you do not look out in season, it will find its way to some brook, and suddenly take French leave of your premises. Get your farming tools in readiness before the hurry of business comes on. Let the wooden part of those implements, which are exposed to the weather, be well seasoned and painted.

From the Utica Observer.

Corn.

Dr. Goodsell, of this city, has handed us a letter just received by him from the Hon. H. L. Ellsworth, of Washington, accompanying a sample of the celebrated Maryland or Baden corn, and enclosing a copy of a letter from Mr. Baden, which discloses the secret of his success. We regret that we are unable to copy the letter of Mr. B. He states that he has brought his corn to its high perfection by selecting the best seed in the field for 22 or 23 years. When he first commenced, it was with a common kind of corn. He was at first troubled to find a stalk with *two good ears* upon it, but now he does not pretend to lay up any seed unless it comes from stalks which bear four, five or six ears, and he has seen those which bore eight ears. It yields nearly double the crop of any other kind of corn. He plants about the first of May, in hills five feet apart each way, and has two stalks in a hill. Some of this corn was sent to Illinois, and the increase was 120 bushels on an acre, and it produced more fodder than any other kind.

The American Farmer.

Far, far from the bustle of "high sounding fetes,"
And the "rattles" of city and town;
What pleasure we feel in our quiet retreat,
Where plenty our cottage surround.

CHORUS.

No life with a farmer's I think can compare,
For his days they are tranquil,—his nights void of care.

Our woodlands afford us good timber and fire,
Our fields yield us grass,—hay and grain;
As for milk, cheese and butter, we have our desire,
With plenty of beef, pork and game.

CHORUS—No life with a farmer's, &c.

The wool of merinos we to clothing apply,
Our orchards rich cider afford;
And honey, and mead, our hives they supply,
While our garden enriches our board.

CHORUS—No life with a farmer's, &c.

Our carriage and horses are ready at hand,
When we journey or visit a friend;
And every comfort we have at command,
For resources with us know no end.

CHORUS—No life with a farmer's, &c.

The world thus our own with a better in view,
We move on to those regions above;
Where in fields ever verdant, our souls shall renew
The worship of God whom we love.

CHORUS.

No life with a farmer's I think can compare,
Who the world thus enjoys with thanksgiving and prayer.

PRICES CURRENT.

ARTICLES.	Philadelphia, June 14.	Baltimore, June 13.	New York, June 14.	Boston, June 13.
Beans, white, per bush.	$1 37—1 62	1 50—1 75	1 75—2 00	3 00—4 00
Beef, mess, new, per bbl.	14 00–15 00	.....	13 50–14 50	15 50–16 50
Bacon, western, per lb	7½— 10	8— 9	8— 10	.....
Butter, extra, per tub	14— 16	.....	17— 19	20 — 25
Butter, fresh, per lb. (market,)	25— 31	25— 37½	25— 38	.....
Hams, per lb	9— 13	10— 12	10— 12	14— 15
Hog's Lard, per lb	8— 10	10— 12	8— 9	10— 11
Cheese, American, per lb	10½— 11½	.....	10— 12	10— 12
Beeswax, yellow, per lb	25— 27	.....	23— 25	25— 30
Beeswax, white	38— 40	.....	38— 40	38— 40
Bristles, American,	.....	.....	25— 65	.....
Flax, American,	.....	.....	.....	9— 12
Flour, best, per bbl.	8 75—9 00	8 00—9 00	9 00—9 25	8 50—9 25
GRAIN—Wheat, per bush. Penna	2 00—2 10	.....	.....	.....
do. Maryland,	1 75—1 95	.....	.....	.....
Rye, per bushel,	1 00—1 20	90—	—1 10	1 07—1 10
Corn, do.	91— 94	85— 86	90— 95	90—1 08
Oats, do.	50— 53	45— 46	50— 60	62— 65
Barley, do. Penn.	80— 90	.....	.....	1 00—1 10
Peas, do.	1 00—1 25	1 12½—	.....	.....
HAY, Timothy, per 100 lbs.	1 05—1 20	15 00 pr ton.	.....	22 50 pr ton.
Meadow Grass,	70— 90	.....	.....	.....
Hemp, American dry rot, ton,	175 00–	.....	—140	.....
Hops, first sort, 1836, lb.	9 — 10	— 16	7½— 8½	6— 7
Plaster Paris, per ton,	2 75—3 00	4 75—4 87	.....	3 75—4 00
SEEDS,—Cloverseed, per bushel,	5 00—6 25	6 50—6 50	.....	.....
Flaxseed, rough, do.	1 40—	1 37—1 50	.....	.....
Timothy,	2 25—2 75	3 00—3 50	.....	2 87—3 12
Tallow, per lb.	8— 10	— 8½	9— 10	12— 13
WOOL—Saxony, fleece, per lb.	65— 73	50— 60	75— 80	70— 75
Merino,	58— 62	45— 50	50— 68	65— 70
1-4 and common,	40— 44	33— 36	35— 45	45— 50

Owing to the uncertainty of prices, we make but few alterations in our table for the present number. Country produce generally remains firm. The accounts from most regions are quite favorable as regards the crops. A very great improvement has taken place within the last few weeks, and the prospect of average crops is cheering. There is still great pressure in the money market—many of the merchants in the principal cities, heavy dealers, and speculators, have sunk before the storm. The commercial, manufacturing and mechanical interests have felt its fury,—but amid all the desolation and wide spread ruin, the agricultural interest stands firm and unshaken—The faithful cultivator of the soil, if true to himself, has nothing to fear.

To Correspondents and Subscribers.

After the present number was in type, we received several communications, among them one, entitled "A trip to Maryland." We regret that they were not received in season—but they shall appear in our next. ☞A notice to subscribers is also unavoidably deferred.

The Money Market is still in a very unsettled state,—Bank notes are from 7 to 10 per cent. below the par value of American silver.

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